

What is claimed is:

1. A skeleton type brushless motor comprising:
a rotor having a rotational shaft in a center thereof; and
a stator including first and second stator cores having rotor receiving part
formed in the stator for receiving the rotor, a coil winding unit connected to the
stator cores, and a coil wound on the coil winding unit;
wherein the first and second stator cores are electrically separated and
facing each other centering on the rotary shaft.

2. The motor of claim 1, wherein the rotor receiving part includes the
first and second rotor receiving parts having semicircular shape, and first and
second separate spaces are formed between each one of both ends of the first
rotor receiving part and corresponding one of those of second rotor receiving part.

3. The motor of claim 2, wherein the first and second separate
spaces have an identical length of 0.3~3mm.

4. The motor of claim 2, wherein outer surfaces of the first stator
core around both ends of the first rotor receiving part and the second stator
core around both ends of the second rotor receiving part are protrudingly formed
outwardly in a radial direction of the rotor.

5. The motor of claim 2, wherein a pair of detent parts, having larger
radius than radii of the first and second rotor receiving parts from the rotary shaft,

are formed around each one end of the first and the second rotor receiving parts in a rotational direction of the rotary shaft, and in point symmetry centering on the rotary shaft.

6. The motor of claim 5, wherein a sensor for sensing a rotational position of the rotor is positioned around 10~20° from one of the separate spaces nearer to the coil winding unit in an opposite rotational direction of the rotor.

7. The motor of claim 6 comprising drive control unit for driving and controlling the rotor, connected to the coil winding unit in a direction of the rotary shaft, wherein a sensor receiving part for receiving the sensor is formed in the drive control unit.

8. The motor of claim 2 further comprising a pair of shaft support parts rotatably supporting the rotational shaft in both sides of the stator; and further comprising a pair of separate members for separating the shaft support parts, the separate members being inserted between the stator and the shaft support parts.

9. The motor of claim 8, wherein a cover is installed on each of the separate members for covering each of the separate spaces.

10. The motor of claim 1 comprising drive control unit for driving and controlling the rotor, connected to the coil winding unit in a direction of the rotary shaft, wherein the drive control unit is PCB on which a drive control circuit is

formed.

11. The motor of claim 10, wherein the PCB further comprises an AC capacitor connected to utility power for decreasing voltage of the utility power, and
5 a rectification circuit for rectifying the utility power inserted between the PCB and the drive control circuit.

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